WHAT IS CLAIMED IS:

1. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a relay lens provided between the beam splitter and the eyepiece lens; and

a shutter provided in a vicinity of the relay lens and configured to cut a reverse-incident light from the eyepiece lens.

2. The camera according to claim 1, wherein the relay lens and the shutter are arranged adjacent to and along a direction of an optical axis of the incident light.

3. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a relay lens provided between the beam splitter and the eyepiece lens and having a plurality of lenses; and

a shutter provided between the plurality of lenses of the relay lens and configured to cut

a reverse-incident light from the eyepiece lens.

4. The camera according to claim 1, wherein the relay lens and the shutter are configured integrally.

5. The camera according to claim 1, wherein at least one or more image formation surfaces is formed between the beam splitter and the eyepiece lens.

6. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a relay lens provided between the beam splitter and the eyepiece lens;

a focusing board provided between the beam splitter and the relay lens and configured to form an image of a subject image for focusing;

a shutter provided between the beam splitter and the relay lens and configured to cut a reverse-incident light from the eyepiece lens; and

an optical member provided between the focusing board and the shutter and configured to prevent a dust from the shutter from adhering to the focusing board.

7. The camera according to claim 6, wherein the shutter is provided between the relay lens and the optical member.

8. The camera according to claim 7, wherein the

shutter is provided in a vicinity of the relay lens.

9. The camera according to claim 6, wherein the relay lens and the shutter are arranged adjacent to and along a direction of an optical axis of the incident light.

10. The camera according to claim 6, wherein the optical member includes one of a cover glass, an optical filter and a condenser lens.

11. The camera according to claim 10, wherein the optical filter includes one of a low-pass filter and a deflecting plate.

12. The camera according to claim 6, further comprising an image display part configured to confirm the subject image, wherein

the viewfinder is arranged in an upper vicinity of a main body of the camera to check the subject image visually from the back side of the main body of the camera, and

the image display part is arranged under the viewfinder.

13. The camera according to claim 12, wherein the viewfinder and the image display part are arranged adjacent to and along up and down direction of a back surface of the camera.

14. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder; and

a liquid crystal device provided between the beam splitter and the eyepiece lens, wherein

the liquid crystal device has a function as a focusing board to form an image of a subject image for focusing, a function as a shutter to cut a reverse-incident light from the eyepiece lens, and a function as a display part on which display segments in a viewfinder are displayed.

15. The camera according to claim 14, wherein the display segments function as a part of the shutter.

16. The camera according to claim 14, further comprising a relay lens provided between the beam splitter and the eyepiece lens, wherein

the focusing board is arranged substantially at a position of an image formation surface between the relay lens and the beam splitter.

17. The camera according to claim 14, wherein the display segments are dispersively arranged at substantially equal distance from an optical axis of the incident light from the subject.

18. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the

incident light divided by the beam splitter with a viewfinder;

a focusing board provided between the beam splitter and the relay lens and configured to form an image of a subject image for focusing;

a liquid crystal device provided in a vicinity of the focusing board, wherein

the liquid crystal device has a function as a shutter to cut a reverse-incident light from the eyepiece lens, and a function as a display part on which display segments in a viewfinder are displayed.

19. The camera according to claim 18, wherein the display segments function as a part of the shutter.

20. The camera according to claim 18, further comprising a relay lens provided between the beam splitter and the eyepiece lens, wherein

the focusing board is arranged substantially at a position of an image formation surface between the relay lens and the beam splitter.

21. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a relay lens provided between the beam splitter and the eyepiece lens; and

a liquid crystal device provided between the relay lens and the eyepiece lens, wherein

the liquid crystal device has a function as a focusing board to form an image of a subject image for focusing, a function as a shutter to cut a reverse-incident light from the eyepiece lens, and a function as a display part on which display segments in a viewfinder are displayed.

22. The camera according to claim 21, wherein the display segments function as a part of the shutter.

23. The camera according to claim 21, wherein the liquid crystal device is arranged substantially on a second image formation surface between the relay lens and the eyepiece lens.

24. The camera according to claim 21, wherein the display segments are dispersively arranged at substantially equal distance from an optical axis of the incident light from the subject.

25. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe a first incident light divided by the beam splitter with a viewfinder;

a first shutter provided between the beam splitter and the eyepiece lens and configured to cut a reverse-incident light from the eyepiece lens;

imaging means for receiving a second incident light divided by the beam splitter and imaging a subject image;

a second shutter configured to control a light amount of the second incident light to the imaging means; and

a controller configured to start an exposure processing by the imaging means after closing the first shutter at photographing based on a predetermined operation, terminating the exposure processing by closing the second shutter, and open the first and second shutters after a read processing of a image data after the exposure processing.

26. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe a first incident light divided by the beam splitter with a viewfinder;

a first shutter provided between the beam splitter and the eyepiece lens and configured to cut a reverse-incident light from the eyepiece lens;

imaging means for receiving a second incident light divided by the beam splitter and imaging a subject image;

a second shutter configured to control a light amount of the second incident light to the imaging

means;

light amount measurement means for controlling an exposure; and

a controller configured to perform a light amount measurement by the light amount measurement means and to start an exposure processing by the imaging means after closing the first shutter at photographing based on a predetermined operation, terminate an exposure processing by closing the second shutter, and open the first and second shutters after a read processing of the image data after the exposure processing.

27. The camera according to claim 26, wherein the light amount measurement means performs a light amount measurement using an image data read out in the read processing.

28. The camera according to claim 26, wherein the light amount measurement means includes a light amount measurement device provided between the beam splitter and the first shutter.

29. The camera according to claim 25, further comprising display means for displaying the subject image imaged by the imaging means during entire period except for a period when the second shutter is closed.

30. The camera according to claim 25, further comprising a relay lens provided between the beam splitter and the eyepiece lens, wherein

the first shutter is provided in a vicinity of

the relay lens.

31. The camera according to claim 30, wherein the relay lens and the first shutter are arranged adjacent to and along a direction of an optical axis of the incident light.

32. In a camera having a rapid sequence function to take two or more images continuously, the camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

a rapid sequence speed setting means for setting a rapid sequence speed of the rapid sequence function; and

a controller configured to fix the shutter to open during the rapid sequence operation if the rapid sequence speed set by the rapid sequence speed setting means is faster than a predetermined boundary rapid sequence speed, and open and close the shutter for each photographing if the rapid sequence speed set by the rapid sequence speed setting means is equal to or slower than a predetermined boundary rapid sequence

speed, at an execution of the photographing using the rapid sequence function.

33. The camera according to claim 32, further comprising a boundary rapid sequence speed setting means for setting a boundary rapid sequence speed.

34. In a camera having a rapid sequence function to take two or more images continuously, the camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

a rapid sequence speed setting means for setting a rapid sequence speed of the rapid sequence function; and

a controller configured to fix the shutter to close during the rapid sequence operation if the rapid sequence speed set by the rapid sequence speed setting means is faster than a predetermined boundary rapid sequence speed, and open and close the shutter for each photographing if the rapid sequence speed set by the rapid sequence speed setting means is equal to or slower than a predetermined boundary rapid sequence

speed, at an execution of the photographing using the rapid sequence function.

35. The camera according to claim 34, further comprising a boundary rapid sequence speed setting means for setting a boundary rapid sequence speed.

36. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

an actuator configured to open the shutter; and

a controller configured to drive the actuator to open the shutter when a main power supply is turned on.

37. The camera according to claim 36, wherein the actuator is used only to move the shutter from a close state to an open state, and is not used to maintain the shutter in the close state or the open state.

38. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

an actuator configured to open and close the shutter; and

a controller configured to drive the actuator to open the shutter when a main power supply is turned on.

39. The camera according to claim 38, wherein the actuator is used only to move the shutter from a close state to an open state or from an open state to a close state, and is not used to maintain the shutter in the close state or the open state.

40. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

an actuator configured to close the shutter; and

a controller configured to drive the actuator to close the shutter when a main power supply is cut off.

41. The camera according to claim 40, wherein the actuator is used only to move the shutter from an open state to a close state, and is not used to maintain

the shutter in the close state or the open state.

42. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut a reverse-incident light from the eyepiece lens;

an actuator configured to open and close the shutter; and

a controller configured to drive the actuator to close the shutter when a main power supply is cut off.

43. The camera according to claim 42, wherein the actuator is used only to move the shutter from a close state to an open state or from an open state to a close state, and is not used to maintain the shutter in the close state or the open state.

44. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe the incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens, and configured to cut

a reverse-incident light from the eyepiece lens;

an actuator configured to open and close the shutter; and

a controller configured to drive the actuator to close the shutter when a main power supply is cut off and to open the shutter when the main power supply is turned on.

45. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe a first incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens and configured to cut a reverse-incident light from the eyepiece lens;

shutter driving means for driving the shutter;

imaging means for receiving a second incident light divided by the beam splitter and creating an image data of a subject image;

white balance adjustment means for adjusting a color temperature of a picture data obtained by the imaging means;

switch means for directing the acquisition of an adjustment data generated from the picture data obtained by the imaging means, and the adjustment data being a reference of the color temperature adjustment

by the white balance adjustment means; and

a controller configured to operate the shutter driving means to cut the reverse-incident light by driving the shutter drive the shutter before the adjustment data is acquired and open the shutter after the adjustment data is acquired when the direction of the acquisition of the adjustment data is directed by the switch means.

46. The camera according to claim 45, wherein the switch means is provided on an outer surface of a camera case.

47. The camera according to claim 45, further comprising flash means for illuminating the subject, wherein

when an acquisition of the adjustment data is directed in a state that an operation mode of which the flash means emits light forcibly is set, the controller does not open and shut the shutter.

48. A camera comprising:

a beam splitter configured to divide an incident light from a subject through a photographing lens;

an eyepiece lens configured to observe a first incident light divided by the beam splitter with a viewfinder;

a shutter provided between the beam splitter and the eyepiece lens and configured to cut a reverse-incident light from the eyepiece lens;

shutter driving means for driving the shutter;

imaging means for receiving a second incident light divided by the beam splitter and creating an image data of a subject image;

light amount measurement means for measuring a light amount of the incident light from the incident light from the subject by the photographing lens;

switch means for directing an acquisition of a light amount measurement data obtained by the light amount measurement means; and

a controller configured to operate the shutter driving means to cut the reverse-incident light by driving the shutter before the adjustment data is acquired and open the shutter after the adjustment data is acquired when the direction of the acquisition of the adjustment data is directed by the switch means.

49. The camera according to claim 48, wherein the switch means is provided on an outer surface of a camera case.

50. A camera comprising:

an imaging lens for forming an image of a subject image;

light receiving means for receiving the subject image formed by the imaging lens;

an iris provided on an optical path of the imaging lens and having a variable aperture;

an iris controller configured to control a size of

an aperture of the iris based on a brightness of the subject;

a viewfinder configured to observe the subject image;

an optical member provided between the iris and the light receiving means and configured to lead the subject image input through the imaging lens to the viewfinder;

an eyepiece shutter configured to be movable at a shielding position and a non-shielding position for an eyepiece window of the viewfinder; and

an eyepiece shutter controller configured to set the eyepiece shutter at the shielding position or the non-shielding position based on the aperture of the iris.

51. The camera according to claim 50, wherein the eyepiece shutter controller sets the eyepiece shutter at the shielding position when the aperture of the iris is smaller than that of the predetermined reference value, and sets the eyepiece shutter at the non-shielding position when the aperture of the iris is larger than the reference value.

52. The camera according to claim 50, further comprising detection means for detecting a strength of the reverse-incident light from the viewfinder, wherein

the eyepiece shutter controller sets the eyepiece shutter at the shielding position or the non-shielding

position based on both of a strength of the reverse-incident light detected by the detection means and the aperture of the iris.

53. The camera according to claim 50, wherein a control of a setting of the eyepiece shutter by the eyepiece shutter controller is performed by synchronizing with a release operation of the electronic camera.

54. A camera comprising:

an imaging lens for forming an image of a subject image;

a light receiving means for receiving the subject image formed by the imaging lens;

a mechanical shutter provided on an optical path of the imaging lens and configured to be movable between a shielding position and a non-shielding position;

means for controlling an amount of an exposure determined with the mechanical shutter based on a brightness of subject;

a viewfinder configured to observe the subject image;

an optical member provided between the mechanical shutter and the light receiving means and configured to lead the subject image input through the imaging lens to the viewfinder;

an eyepiece shutter configured to be movable at

the shielding position and the non-shielding position for an eyepiece window of the viewfinder; and

an eyepiece shutter controller configured to set the eyepiece shutter at the shielding position or the non-shielding position based on the exposure determined by the mechanical shutter.

55. The camera according to claim 54, wherein the eyepiece shutter controller sets the eyepiece shutter at the shielding position when the exposure determined with the mechanical shutter is smaller than that of the predetermined reference value, and sets the eyepiece shutter at the non-shielding position when the exposure determined with the mechanical shutter is larger than the reference value.

56. The camera according to claim 54, further comprising detection means for detecting a strength of the reverse-incident light from the viewfinder, wherein

the eyepiece shutter controller sets the eyepiece shutter at the shielding position or the non-shielding position based on a strength of the reverse-incident light detected by the detection means and the exposure determined by the mechanical shutter.

57. The camera according to claim 54, wherein a control of a setting of the eyepiece shutter by the eyepiece shutter controller is performed by synchronizing with the release operation of the electronic camera.

58. A camera comprising:

an imaging device for forming an image of a subject image;

an imaging optical system configured to input the subject image to the imaging device;

imaging shielding means for cutting an incident light from the imaging optical system to the imaging device;

optical viewfinder means for confirming the subject image by separating a part of the incident light to the imaging device;

reverse-incident light shielding means for shielding the incident light from the optical viewfinder means to the imaging device;

set state detection means for detecting a set state of the reverse-incident light shielding means;

defect data detection means for detecting a pixel defect address of the imaging device by analyzing an output of the imaging device obtained in a state that the incident light to the imaging device by the imaging optical system is cut by the imaging shielding means;

defect compensation means for performing a compensation processing by a vicinity pixel data to an output from the imaging device based on the defect data detected by the defect data detection means; and

a controller configured to prohibit a detection of the defect address by the defect data detection means

when the set state of the reverse-incident light shielding means detected by the set state detection means is not in a light-shielded state.

59. The camera according to claim 58, wherein when the set state of the reverse-incident light shielding means is switched in a state of the non-shielding, the defect data detection means detects the defect address.

60. The camera according to claim 58, further comprising:

storage means for registering the pixel defect address of the imaging device as a defect data; and

defect data management means for updating the defect data registered in the storage means based on the defect data newly detected by the defect data detection means.

61. The camera according to claim 60, wherein the defect data management means additionally registers a pixel defect address which is not overlapped with the pixel defect address of the registered defect data of the pixel defect addresses among the new detected defect data newly detected for the registered defect data already registered.

62. The camera according to claim 60, wherein the defect data management means additionally registers the defect data which is not overlapped with the pixel defect address of the initial registered defect data of the pixel defect addresses of the new detected defect

data newly detected to the initial registered defect data registered when the factory is shipped.

63. A camera comprising:

an imaging device;

an imaging optical system configured to input the subject image by the imaging device;

optical viewfinder means for observing the subject image input by the imaging optical system;

reverse-incident light shielding means for shielding the incident light from the optical viewfinder means to the imaging device;

defect data detection means for executing the detection of the pixel defect data of the imaging device by analyzing an output of the imaging device;

defect correction means for performing correction of an output of the imaging device based on the pixel defect data detected by the defect data detection means; and

a controller configured to execute the detection of the defect data after cutting the reverse-incident light shielding means by driving it when the reverse-incident light shielding means is open at the defect data detection by the defect data detection means.

64. The camera according to claim 63, wherein further comprising imaging shielding means for shielding the incident light from the imaging optical system to the imaging device, wherein

the defect data detection means includes the dark output information analysis means for analyzing the output of the imaging device obtained with the incident light to the imaging device caused by the imaging optical system shielded by the imaging shielding means.

65. The camera according to claim 63, wherein

the pixel defect data is a pixel defect address information which shows a pixel defect address, and

the defect compensation means includes a defect compensation means which supplements a pixel registered as the pixel defect address according to neighboring non-registration pixel information.

66. The camera according to claim 65, further comprising:

storage means for storing a pixel defect address information of the imaging device; and

defect data management means for updating the pixel defect address information stored in the storage means based on the pixel defect data newly detected by the defect data detection means.

67. The camera according to claim 63, further comprising set state detection means for detecting a set state of the reverse-incident light shielding means, wherein

the controller judges the set state of open or close of the reverse-incident light shielding means based on the detection result by the set state

detection means.

68. The camera according to claim 67, wherein the controller prohibits the detection of the defect data by the defect data detection means, when it is recognized that the reverse-incident light shielding means does not shut to the controller though it is execution of the close driving of the reverse-incident light shielding means based on the detection result by the set state detection means.

69. The camera according to claim 68, wherein the controller makes alarm when it is recognized that the reverse-incident light shielding means does not shut to the controller though it is execution of the close driving of the reverse-incident light shielding means based on the detection result by the set state detection means.

70. The camera according to claim 68, wherein the controller includes the means for record this as abnormal career information, when it is recognized that the reverse-incident light shielding means does not close though it is execution of the close driving of the reverse-incident light shielding means based on the detection result by the set state detection means.

71. A camera comprising:

an imaging optical system;

an viewfinder optical system comprising a viewfinder to observe subject based on a part of

a incident light to the imaging optical system;

pixel defect check means for checking a pixel defect of the imaging device arranged on an image formation surface of the imaging optical system;

display means for displaying information relating to the pixel defect check;

shielding means which can open or close an optical path in the viewfinder optical system by manual to prevent a reverse-incident light from the viewfinder; and

display output means for outputting an alarm pushed to close an optical path by the shielding means to the display means before start of checking the pixel defect.

72. The camera according to claim 71, further comprising open limitation means for keeping the shielding means in a close state, when the manual operation by which the shielding means is in an open state while checking the pixel defect is performed.

73. A camera comprising:

an imaging optical system;

an viewfinder optical system comprising viewfinder to observe a subject image based on a part of an incident light to the imaging optical system;

pixel defect check means for checking the pixel defect of the imaging device arranged on an image formation surface of the imaging optical system;

display means for displaying information relating to the pixel defect check;

shielding means which can open or close an optical path in the viewfinder optical system by manual to prevent the reverse-incident light from the viewfinder;

judgment means for judging the open or close state of the shielding means before start of checking the pixel defect; and

display output means for outputting an alarm pushed to close the optical path by the shielding means before start of checking the pixel defect to the display means, when it is judged that it is in the open state by the judgment means.

74. The camera according to claim 73, further comprising open limitation means for keeping the shielding means in a close state, when the manual operation by which the shielding means is in an open state while checking the pixel defect is performed.

75. A camera which comprises: an imaging optical system; an viewfinder optical system comprising a viewfinder to observe a subject image based on a part of an incident light to the imaging optical system; pixel defect check means for checking a pixel defect of the imaging device arranged on an image formation surface of the imaging optical system; and display means for displaying an information relating to a pixel defect check, comprising:

shielding means which can open or close an optical path in the viewfinder optical system manually, for preventing a reverse-incident light from the viewfinder;

judgment means for judging a presence of the reverse-incident light from an image data of the imaging device before start of checking the pixel defect; and

display output means for outputting an alarm pushed to close the optical path by the shielding means to the display means before start of checking the pixel defect when it is judged that there is the reverse-incident light by the judgment means.

76. The camera according to claim 75, further comprising open limitation means for keeping the shielding means in a close state, when the manual operation by which the shielding means is in an open state while checking the pixel defect is performed.